

Test Report

Report No.: GZEE210800180531

Date: 2021-08-13

The following sample(s) was/were submitted and identified on behalf of the client as:

Applicant: AOK Industrial Company Limited
East Seat, Three Floor, Building One, Shenzuozi Science and Technology
Industrial Park, Xinyu Road North Side, Shajing Street, Baoan, Shenzhen,
Guangdong, China

Manufacturer: Same as applicant

Testing location/address: SGS-CSTC Standards Technical Services Co., Ltd. Guangzhou Branch
198 Kezhu Road, Science City, Economic & Technology Development Area,
Guangzhou, Guangdong, China

Standard(s): IES LM-79-08

Test item description: LED Street Light

Trade Mark/Brand: AOK

Model/Type reference: AOK-150WiL02-NV-L3-00-2770-T201-PH

Ratings: 220 V – 240 V AC; 50 Hz / 60 Hz; 150 W

Test result: See Page 4-6.

Remark: Throughout this report a point is used as the decimal separator.
When determining for test conclusion, measurement uncertainty of tests has
been considered.

Alex Tan

Alex Tan
Reviewer
E&E Safety Laboratory

Simon Chen

Simon Chen
Sr Project Engineer



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Guangzhou Branch Testing Laboratory

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Copy of marking plate

N/A

Summary of testing:

The Unit Under Test operated at 230 V AC 50 Hz and measured total luminous flux, luminous efficacy, light distribution, CCT and color rendering index.

Test item particulars.....:

Lamp cap: —
 Lamp identification: —
 Commission received from: Applicant
 Date: 2021-08-12
 Ambient temperature: 25 °C
 IP number: —

Testing

Date of receipt of test item: 2021-08-11
 Date (s) of performance of tests: 2021-08-11 to 2021-08-12

General product information:

LED luminaire.



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1 Test conditions

Before measurements are taken, there is no seasoning for the LED luminaire(s), and the luminaire(s) was/were measured after reaching the stabilization.

The sample was mounted at light down position.

The Total Luminous Flux and Light Distribution were measured by a calibrated Type C Goniophotometer.

The Color Characteristics were measured by a calibrated 2m Integrating Sphere System which consists of an integrating sphere, spectroradiometer and software in 4 π geometry taken at least 5 nm intervals over the range of 380 to 780 nm. The coating reflectance is 98%.

The ambient temperature during measurements was 25°C \pm 1°C.



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2 LM-79-08 Test Results

I) The Total Luminous Flux and Electrical Power

Test Voltage: 230.18 V AC
 Test Current: 0.6454 A
 Power: 146.34 W
 PF: 0.985
 Stabilization time: 1 h
 Total operating time for measurements: 2 h
 Total Luminous Flux: 15257 lm
 Luminous Efficacy: 104.26 lm/W
 Average Beam Angle (50% I_{max}): 112.4°
 BUG ratings: B3-U3-G3

ZONE LUMEN SUMMAR:

γ [°]	Zonal flux [lm]	Sum. zonal flux [lm]	Rel. zonal flux [%]	Sum. rel. zonal flux [%]
0.0	0.0	0.0	0.0	0.0
5.0	97.1	97.1	0.6	0.6
10.0	291.5	388.6	1.9	2.6
15.0	486.0	874.6	3.2	5.7
20.0	678.6	1553.2	4.5	10.2
25.0	865.2	2418.4	5.7	15.9
30.0	1040.2	3458.6	6.8	22.7
35.0	1195.4	4654.0	7.8	30.5
40.0	1324.0	5978.0	8.7	39.2
45.0	1420.8	7398.8	9.3	48.5
50.0	1478.2	8877.0	9.7	58.2
55.0	1487.3	10364.3	9.8	67.9
60.0	1445.8	11810.1	9.5	77.4
65.0	1340.0	13150.1	8.8	86.2
70.0	1096.8	14246.9	7.2	93.4
75.0	648.0	14894.9	4.3	97.6
80.0	231.7	15126.6	1.5	99.2
85.0	60.0	15186.6	0.4	99.5
90.0	13.9	15200.6	0.1	99.6
95.0	2.9	15203.5	0.0	99.7
100.0	2.3	15205.7	0.0	99.7
105.0	2.4	15208.1	0.0	99.7
110.0	2.7	15210.8	0.0	99.7



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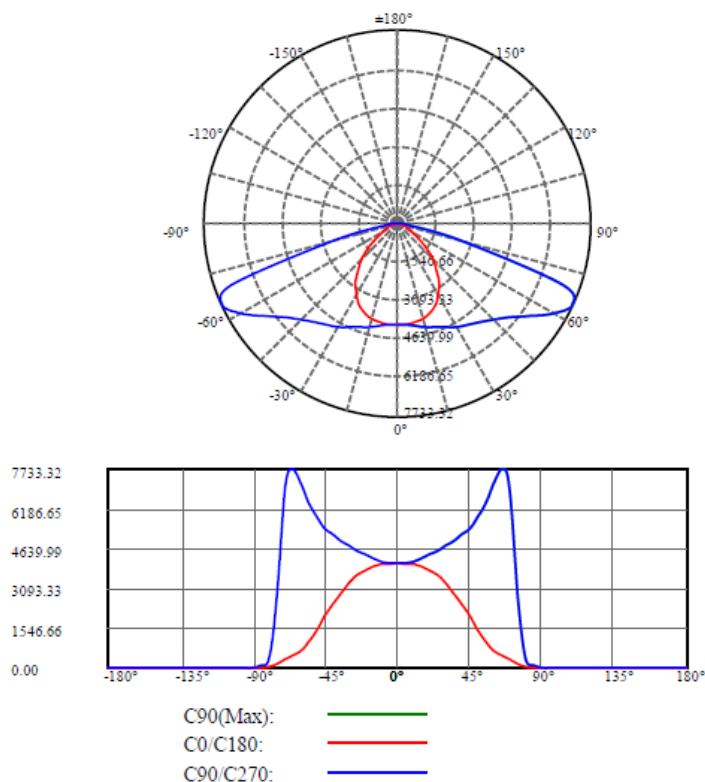
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115.0	3.2	15214.1	0.0	99.7
120.0	3.7	15217.8	0.0	99.7
125.0	4.0	15221.8	0.0	99.8
130.0	4.0	15225.8	0.0	99.8
135.0	4.0	15229.8	0.0	99.8
140.0	4.2	15234.0	0.0	99.9
145.0	4.2	15238.2	0.0	99.9
150.0	4.1	15242.3	0.0	99.9
155.0	3.8	15246.1	0.0	99.9
160.0	3.5	15249.6	0.0	100.0
165.0	3.0	15252.6	0.0	100.0
170.0	2.3	15254.9	0.0	100.0
175.0	1.5	15256.4	0.0	100.0
180.0	0.5	15256.9	0.0	100.0

Light distribution Curve [unit: cd]



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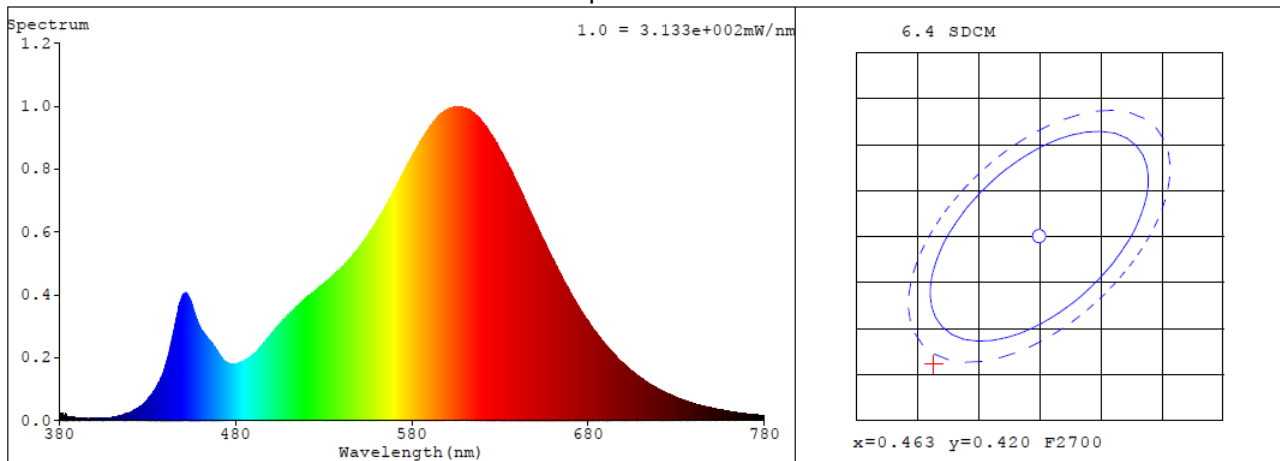
II) Color Characteristics of the LED luminaire

Test Voltage: 230.0 V
Stabilization time: 1 h
Total operating time for measurements: 2 h

Chromaticity Coordinate: $x=0.4543$; $y=0.4061$
 $u'=0.2609$; $v'=0.5248$

Correlated Color Temperature: 2743 K
Color Rendering Index: 82.2
LED type chip: 3030 2D
LED model: L130-2780003000

Relative spectrum distribution



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3 Standard bulb used for system calibration

Model	D204H
Intensity Distribution Type	Omni-Directional Type
Calibration current(A)	5.0250
Reference voltage (V)	26.5
Calibration CCT (K)	3217
Calibration luminous Flux (lm)	3000



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4 List of equipment used

Registration No	Equipment name	Model No	Manufacturer	Cal. Due Date (cycle in years)
GZE126-24	Standard light source	D204H	Everfine	2022/6/25
GZE126-9	Integrating sphere	AIS-2_2.0m R98	Everfine	2022/1/3
GZE126-8	High accuracy array spectroradiometer	HAAS-2000-VIS-V2	Everfine	2021/11/01
GZE126-12	Digital CC&CV DC power supply	WY305	Everfine	2021/11/2
GZE126-13	Digital power analyzer	PF210	Everfine	2021/11/2
GZE126-14	AC Testing power source	DPS1010	Everfine	2021/11/2
GZE129-1	Goniophotometric system	GMS-1980	SENSING	2022/6/28
GZE003-17	AC/DC Power supply	PCR500M	Kikusui	2022/1/2
GZE006-79	Digital power analyzer	WT310E	Yokogawa	2022/4/7



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Photo documentation:

Details of: View of the product

View:

- ☒ general
- ☐ front
- ☐ rear
- ☐ right
- ☐ left
- ☐ top
- ☐ bottom



- - - End of Report - - -



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